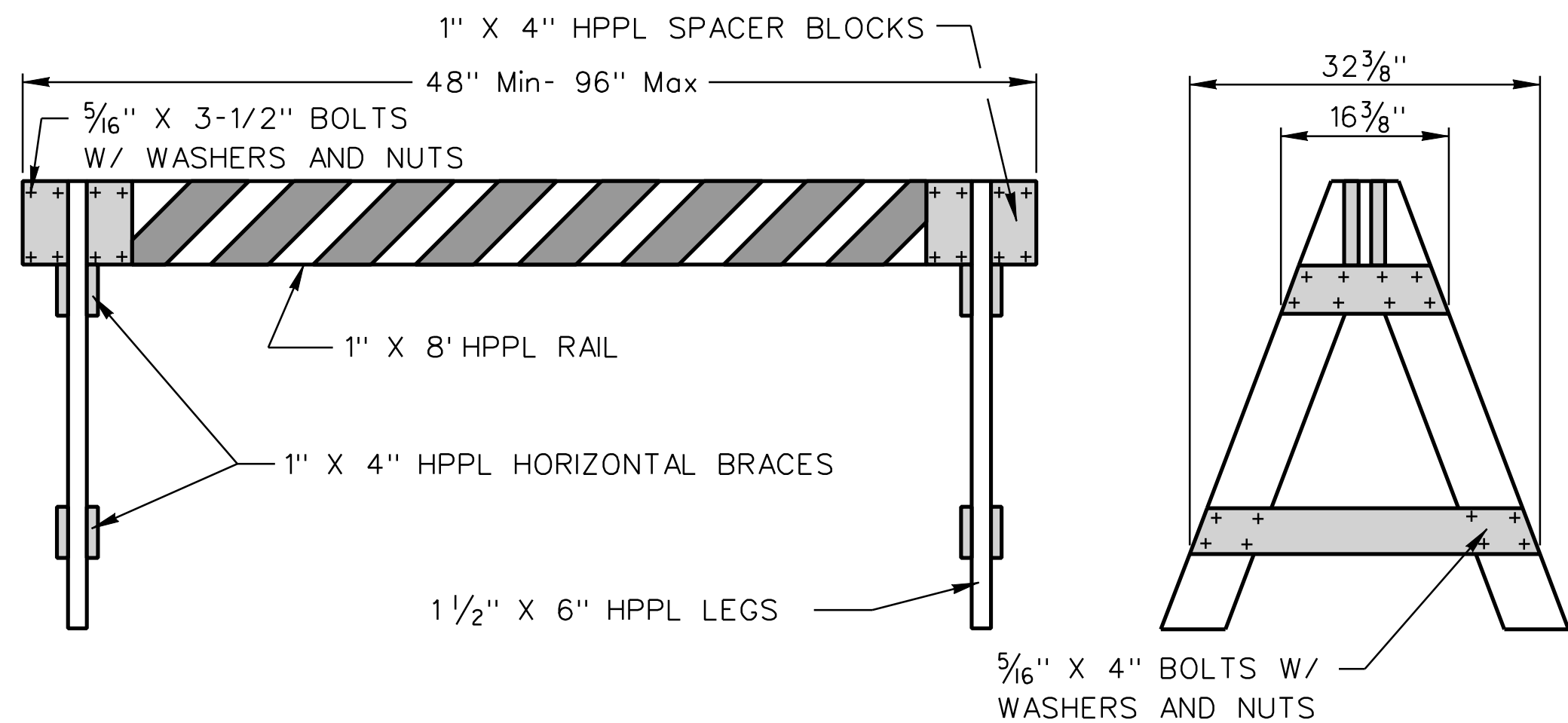
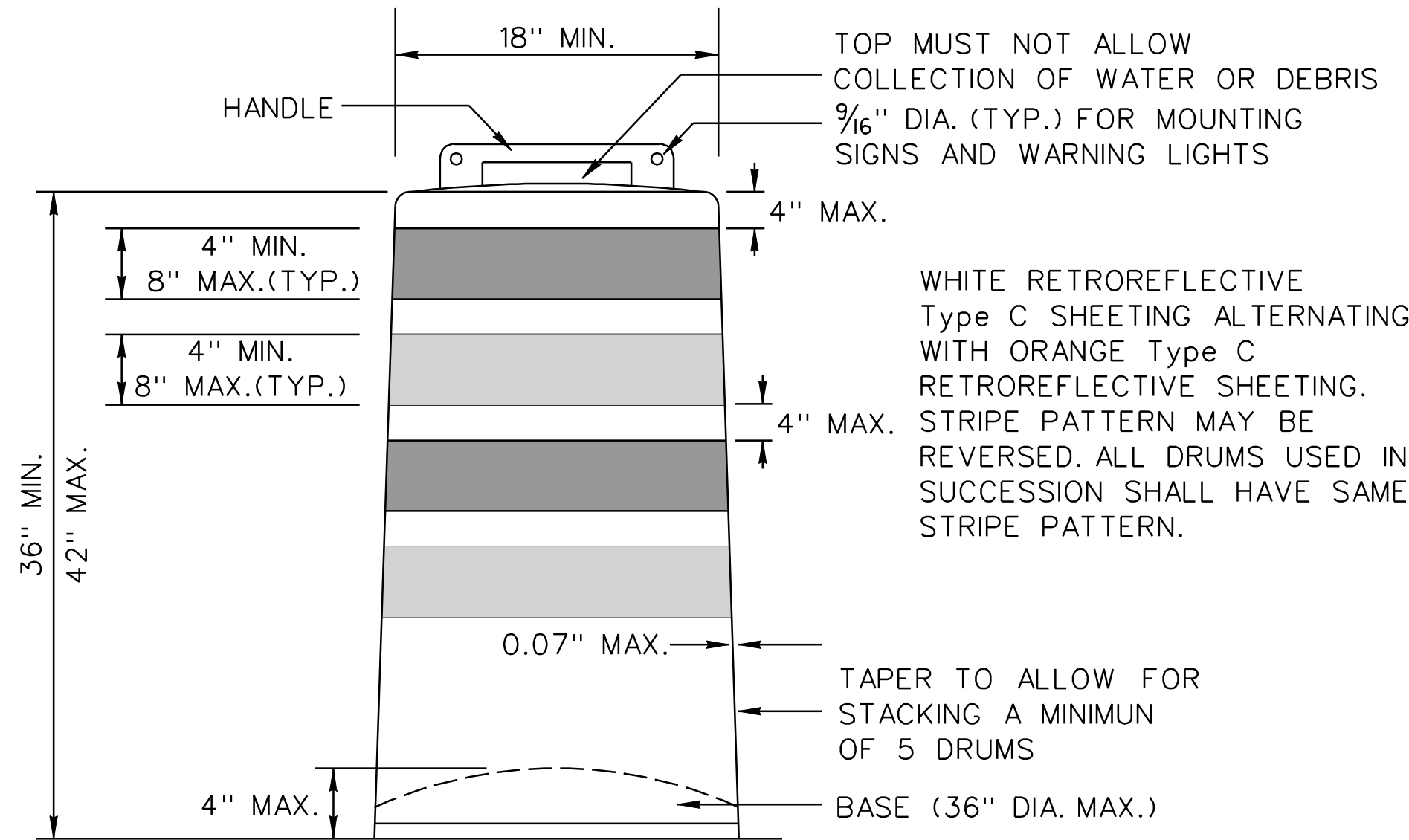


Type I BARRICADE



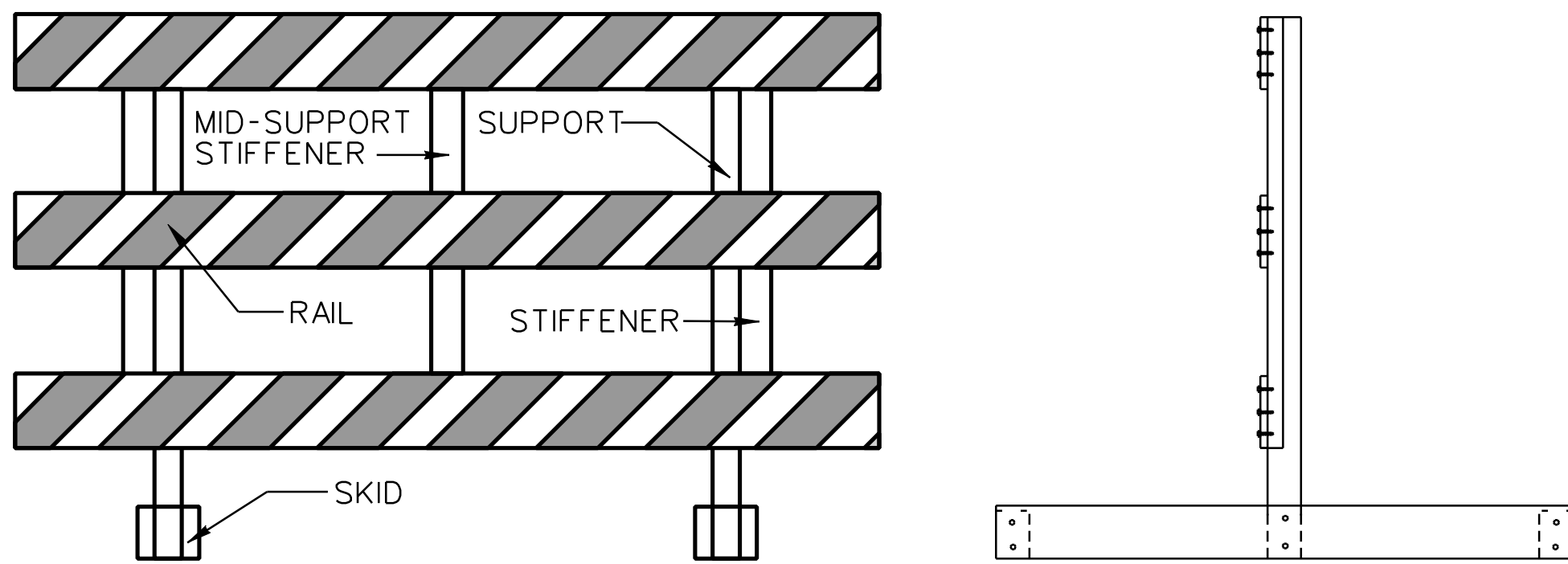
- 1.) Only the following Type I barricade shall be used in the City of San Antonio R.O.W.
- A. 1" x 8" plastic rail with 2" x 6" wooden legs.
  - B. 1" x 8" wooden rail with plastic legs.
  - C. 1" x 8" wooden rail with 2" x 6" wood legs.
  - D. No screws allowed for assembly of A-legs or rail.
  - E. Warning lights will be used as directed by the Traffic Engineer.
  - F. All Type I (4') barricades will be a minimum of 36" high and 60" wide. (For construction use only)
  - G. All Type I (8') barricades with wooden legs shall be 2" X 6" wood only.
  - H. All Type I (4') barricades with wooden legs shall be 1" X 8" wood only.
- 2.) Type I Barricades shall not be used for partial and total street closures in construction work zones. Only Type III barricades shall be used for this purpose.
- 3.) Warning lights shall not be mounted on Type I barricades.
- (See TxDOT B.C. Sheets (BC-98) for specific construction information)

PLASTIC DRUMS



- 1.) Each drum must have a 40 lb. rubber or plastic snap on.
- 2.) No signs larger than 18" X 24" will be allowed to be mounted on plastic drums.
- 3.) No warning lights will be allowed to be mounted on plastic barrels.
- 4.) In lieu of a warning light, a yellow reflector will be acceptable.
- (See TxDOT B.C. Sheets (BC-98) for specific construction information)

Type III BARRICADE



- 1.) Only the following Type III barricade shall be used in the City of San Antonio R.O.W.
- A. Hollow polyvinyl or fiberglass tubing post with 1" X 8" wooden rails.
  - B. Hollow polyvinyl or fiberglass tubing post with plastic rails.
  - C. Skids must be wood or solid plastic only.
  - D. Warning lights shall not be mounted on Type III barricades.
- (See TxDOT B.C. Sheets (BC-98) for specific construction information)

SIGNS

- 1.) A maximum of two signs can be mounted on any one Long/Intermediate Term Stationary Portable Sign Support.
- 2.) 48" X 48" signs shall be mounted separately on the Long/Intermediate Term Stationary Portable Sign Support.
- 3.) For Short Term Stationary Portable Sign Support the distance from the bottom of the vinyl sign to the exiting ground must be one (1) foot.
- 4.) Long/Intermediate Term Stationary Portable Signs must be made of wood or plastic only.
- 5.) No signs shall be mounted to any Type I, Type III, or folding barricades.
- 6.) Signs shall be mounted only on TxDOT approved sign supports.
- 7.) Detour signs will be mounted on single "D" legs w/ 7' clearance from the bottom of the sign.
- 8.) WORK DURATION TERMINOLOGY  
Long Term Stationary = occupies a location 3 or more days;  
Intermediate-Term Stationary = occupies a location for overnight to 3 days.  
Short Term Stationary = daylight work that occupies a location from 1 to 12 hours.  
Short Duration = occupies a location up to 1 hour.
- (See TxDOT B.C. Sheets (BC-98) for specific construction information)

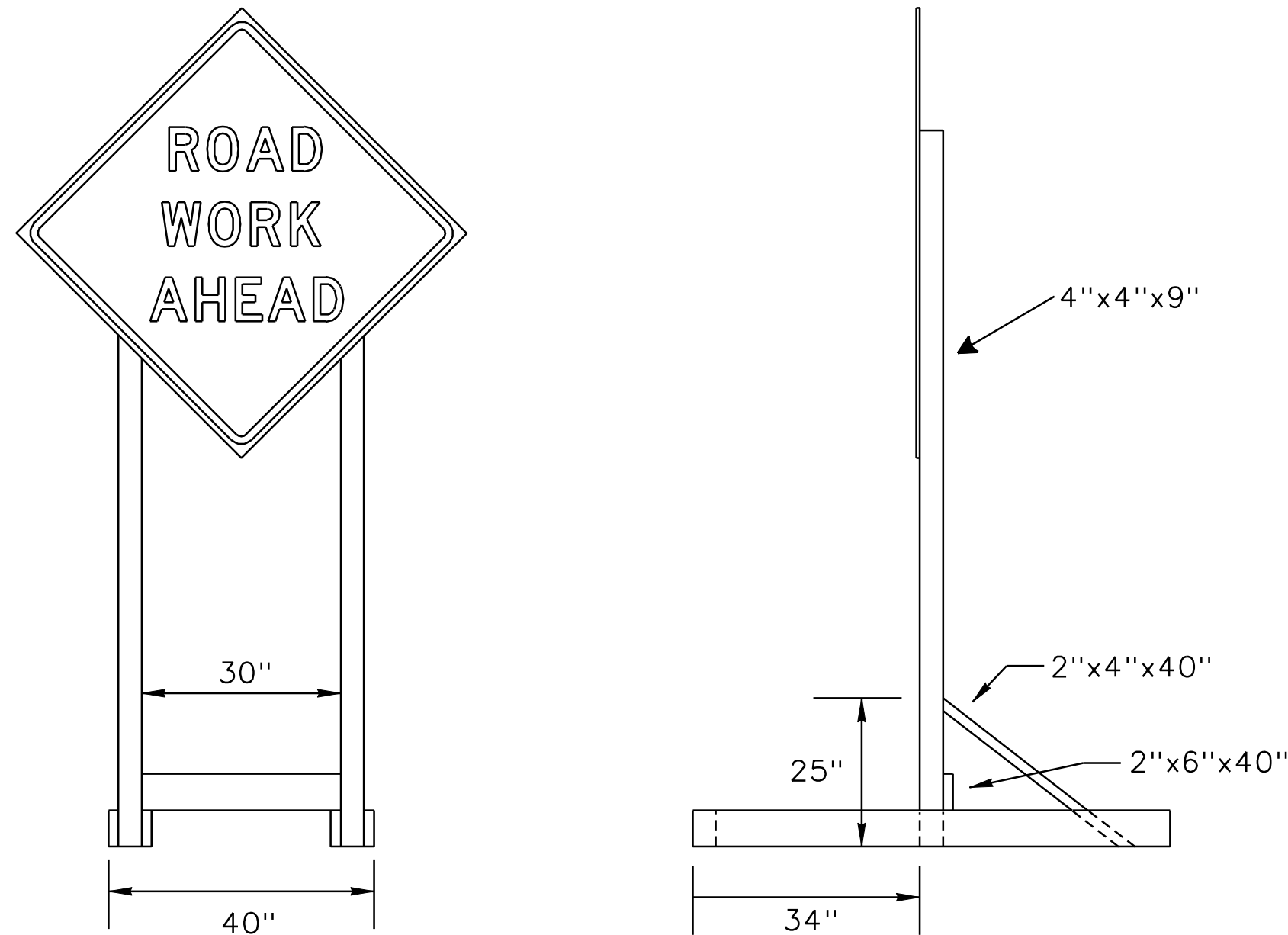
TEMPORARY MARKINGS

- 1.) Solid double yellow painted lines shall be installed for temporary division of traffic or construction duration longer than five (5) days, with repainting to occur once monthly or at the discretion of the Traffic Engineer. (All cost of upkeep will be at the contractor's expense.)
- 2.) Solid double yellow tabs, or V/P pannels shall be installed for temporary division of traffic for construction duration less than five (5) days, with re-tabbing to occur at the discretion of the Traffic Engineer. NAILS SHALL NOT BE USED TO FIX TABS TO PAVEMENT OR BASE (All cost of upkeep will be at the contractor's expense.)
- (See TxDOT B.C. Sheets for specific construction information.)

TEMPORARY CONCRETE BARRIER

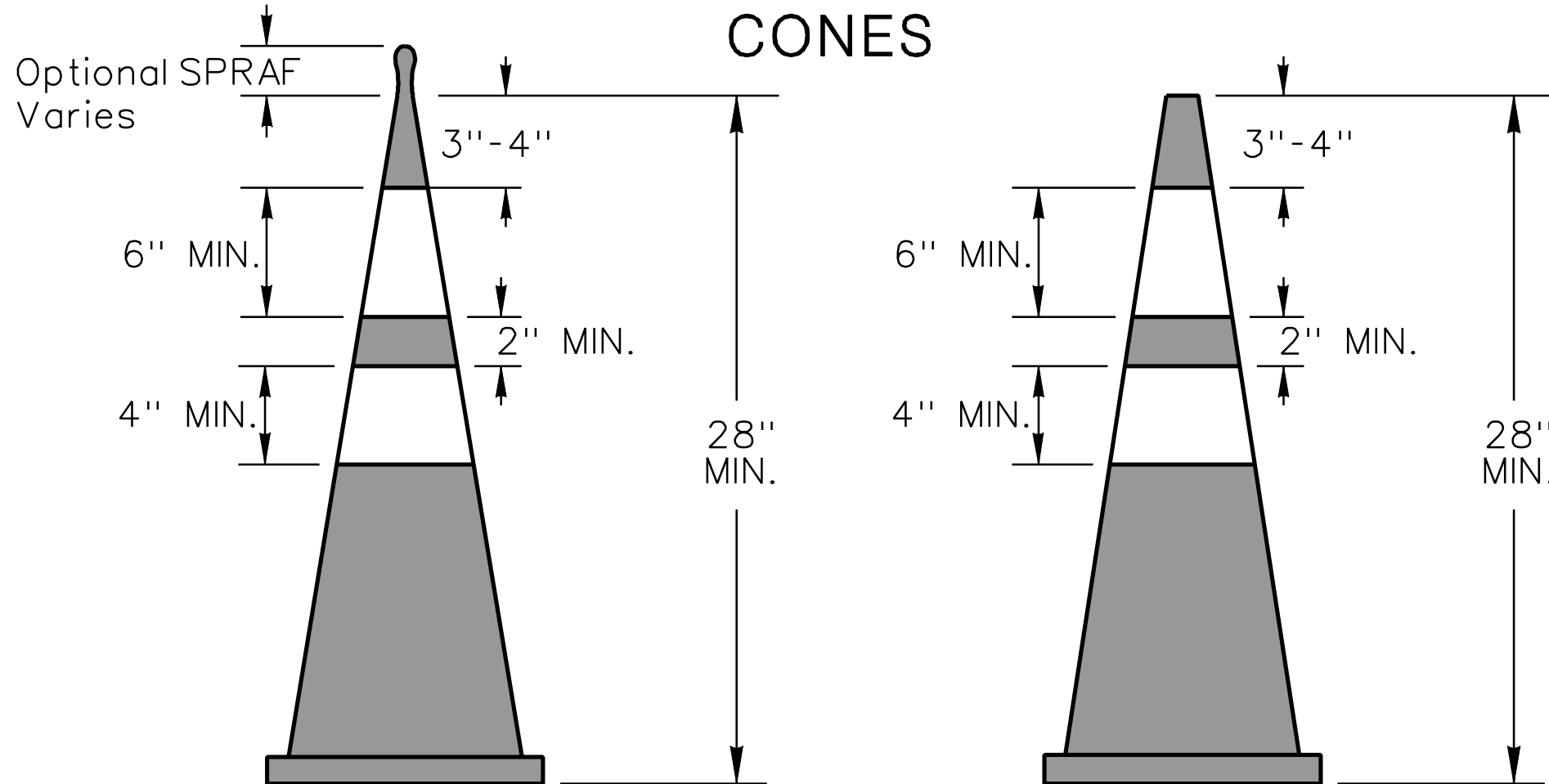
- 1.) All concrete barriers placed on City R.O.W. shall be low profile.
- 2.) No high profile barriers will be allowed.
- 3.) Reflectors will be required on each concrete barrier.
- (See TxDOT B.C. Sheets (BC-98) for specific construction information)

LONG TERMINTERMEDIATE TERM SIGN SUPPORT



- 1.) 48" X 48" signs must be mounted independently.
- 2.) A maximum of two signs can be mounted on any one long term/intermediate sign support.
- 3.) Sand bag all sign supports.
- 4.) Distance from the bottom of the sign to the existing ground shall be 7'.
- 5.) Distance from the header barricade rail to the face of the sign panel shall be 2' min and 10' max.
- 6.) Steel tripods shall not be allowed
- (See TxDOT B.C. Sheets (BC-98) for specific construction information)

CONES



- 1.) Base for 28" high cones must weigh at least 9.5 lbs.
- 2.) Night time cones must have reflective collars.
- (See TxDOT B.C. Sheets (BC-98) for specific construction information)

REVISED 9-24-99

CITY OF SAN ANTONIO, TEXAS  
DEPARTMENT OF PUBLIC WORKS ENGINEERING & TRAFFIC DIVISION

BARRICADE AND CONSTRUCTION  
STANDARDS (BC-SA(1)-99)

SURVY. BY: 1999 APPR. BY: 1999 SCALE: NOT TO SCALE  
DRAWN BY: O. TREVINO 1999 TRAFFIC SIGNAL DESIGN ENGINEER REF. NO.:  
DSGN. BY: T. PIZZI 1999 APPR. BY: J. CLEMENTS 1999 PROJ. NO.:  
CHKD. BY: J. CLEMENTS 1999 ENGINEERING & TRAFFIC ENGINEER SHEET NO.: 1 OF 3

TRAFFIC NOTES

TRENCHING/EXCAVATING

The following notes shall apply to excavations of trenches or pits that are located in the pavement or are within six (6) feet of the edge of roadway:

- 1.) Trench walls shall not be closer than three (3) feet from the edge of the traveled way at any stage of construction.
- 2.) Traffic control devices shall be in place before starting any excavation.
- 3.) Trenches or pits will not be permitted to be bridged by steel plates and open to traffic unless they are temporarily backfilled to finished street grade.
- 4.) For pits or trenches along or in a roadway that are going to be left open over night that are zero to fifty (0 - 50) feet in length, the following applies. GUARD RAIL OR CONCRETE BARRIER SHALL BE USED.
- 5.) For pits or trenches along or in roadway that are going to be left open over night and are longer than 50 feet in length. CONCRETE BARRIERS MUST BE USED.
- 6.) Plastic construction fencing shall be required for any trench or pit left open over night.
- 7.) When using any guardrail or concrete barrier, protected end must be used as per the TEXAS-M.U.T.C.D.
- 8.) For vertical drop-offs greater than two (2) feet along roadway, low profile concrete with appropriate end protection must be installed.
- 9.) All concrete barriers placed on City R.O.W shall be low profile. No high profile barriers will be allowed.

REFLECTIVE SHEETING

The reflectorized white and reflectorized orange stripes for channelizing devices such as barricade drums and vertical panels shall be constructed of reflective sheeting meeting the color and retro-reflectivity requirements of high intensity, unless otherwise specified in the plans.

MAINTENANCE

- 1.) All traffic signs shall be kept in proper position, clean and legible at all times. Damaged barricades, signs, and other traffic control devices shall be replaced without undue delay.
- 2.) To ensure adequate maintenance, a suitable schedule for inspection, cleaning, and replacement of barricades, lights, and signs shall be established.
- 3.) Special attention and necessary action shall be taken to see that weeds, trees, shrubbery and construction materials do not obscure the face of any sign or barricades.

TRAINING

Each person whose actions affect maintenance and construction zone safety, from the upper-level management personnel through construction and maintenance field personnel, should receive training appropriate to the job decision each individual is required to make. Only those individuals who are qualified by means of adequate training in safe traffic control practices and have a basic understanding of the principles established by applicable standards and regulations, including those of the TEXAS M.U.T.C.D. should supervise the selection, placement, and maintenance of traffic control devices in maintenance and construction areas.

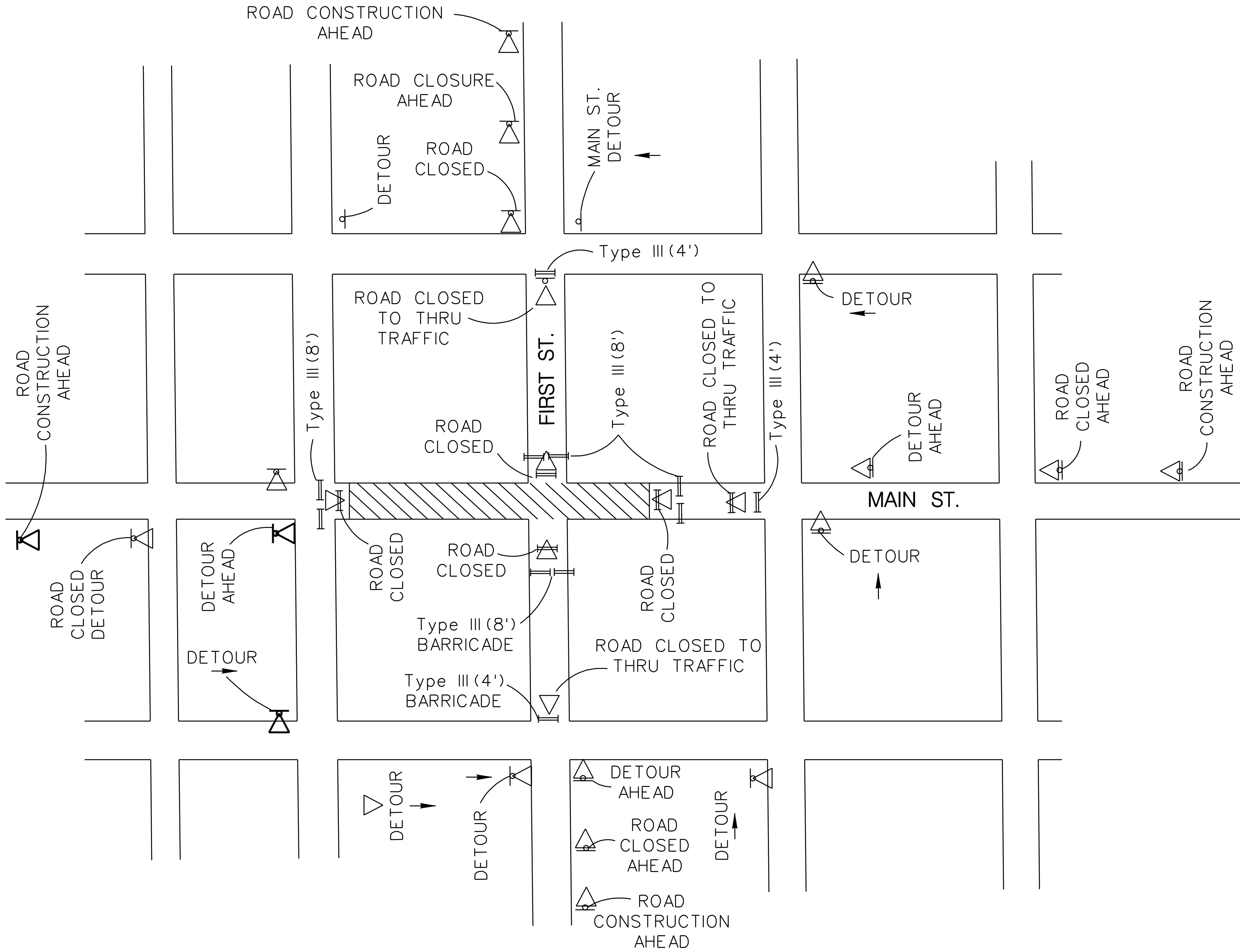
SPECIAL EVENTS BARRICADING

All Type I, (8') barricades used for special events (Dome, Runs, Walks, Parades etc.) shall be a minimum of 42" high and 96" wide. Any necessary signs will require proper sign stands.

USE OF CITY R.O.W.

The City of San Antonio reserves the right to allow contracting and barricading sub-contractors to use the City's R.O.W. The City also reserves the right to advise contractors and barricading sub-contractors to remove stored or unused traffic control devices from the City of San Antonio R.O.W. It is the barricading sub-contractor's responsibility to remove any traffic control device from City's R.O.W. when instructed to do so by a City representative.

CLOSURE DIAGRAMS



TYPICAL INTERSECTING STREET CLOSURE  
FOR TWO LANE STREETS

NOTE:  
ALL SIGNS WILL BE  
MOUNTED ON SIGN  
SUPPORTS ONLY

THE ORIGINAL OF THIS DRAWING WAS SIGNED AND  
SEALED BY JAMES M. CLEMENTS, \*80510 ON 09-19-99  
FOR THE CITY OF SAN ANTONIO, TEXAS  
DIVISION OF THE PUBLIC WORKS DEPARTMENT, CITY  
OF SAN ANTONIO.

REVISED 9-24-99

CITY OF SAN ANTONIO, TEXAS

DEPARTMENT OF PUBLIC WORKSENGINEERING & TRAFFIC DIVISION

BARRICADE AND CONSTRUCTION  
STANDARDS (BC-SA(2)-99)

SURV. BY: 1999

DRWN. BY: O. TREVINO 1999

DSGN. BY: T. PIZZI 1999

CHKD. BY: J. CLEMENTS 1999

APPR. BY: 1999

TRAFFIC SIGNAL DESIGN ENGINEER

APPR. BY: J. CLEMENTS 1999

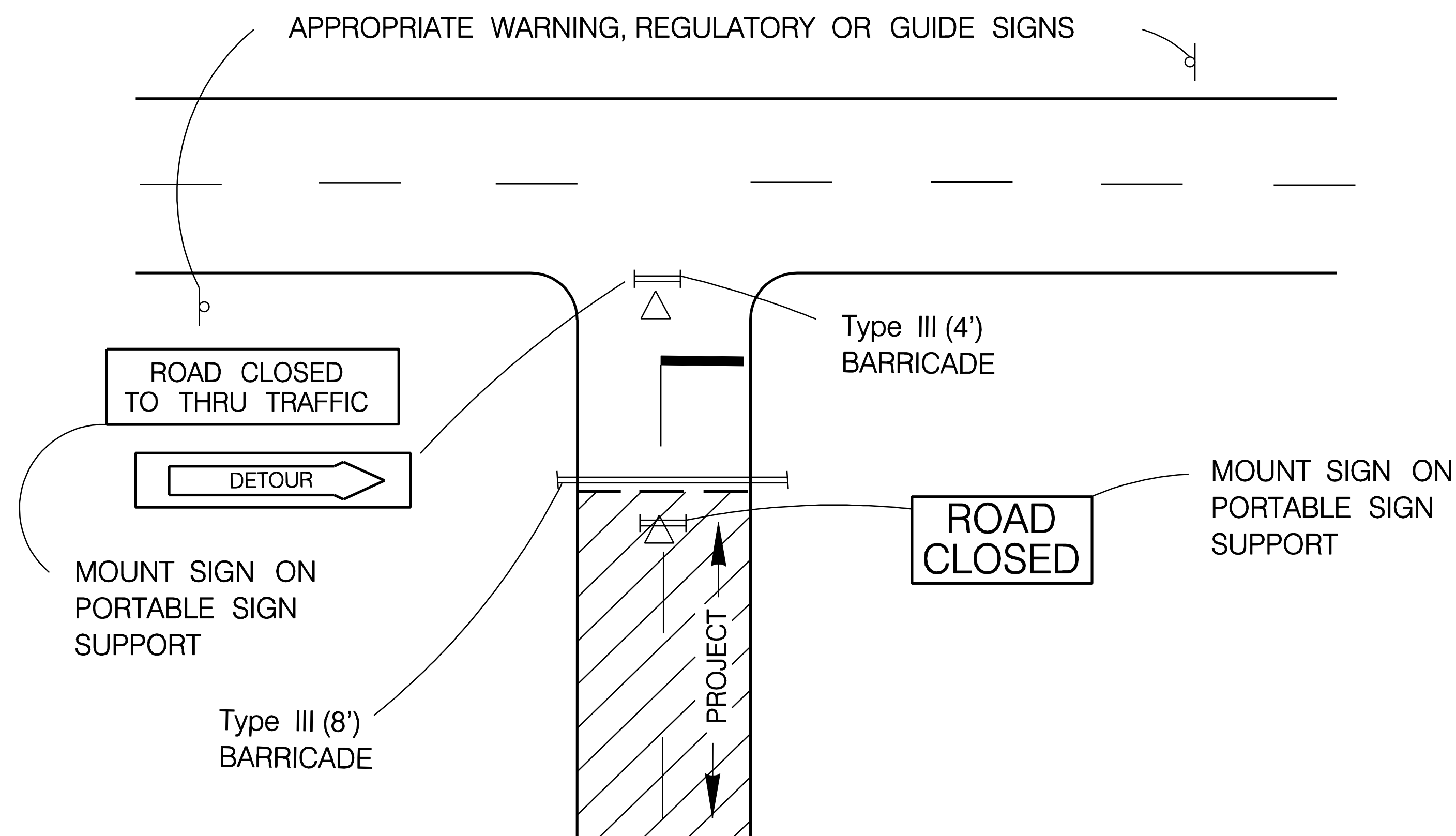
ENGINEERING & TRAFFIC ENGINEER

SCALE: NOT TO SCALE

REF. NO.:

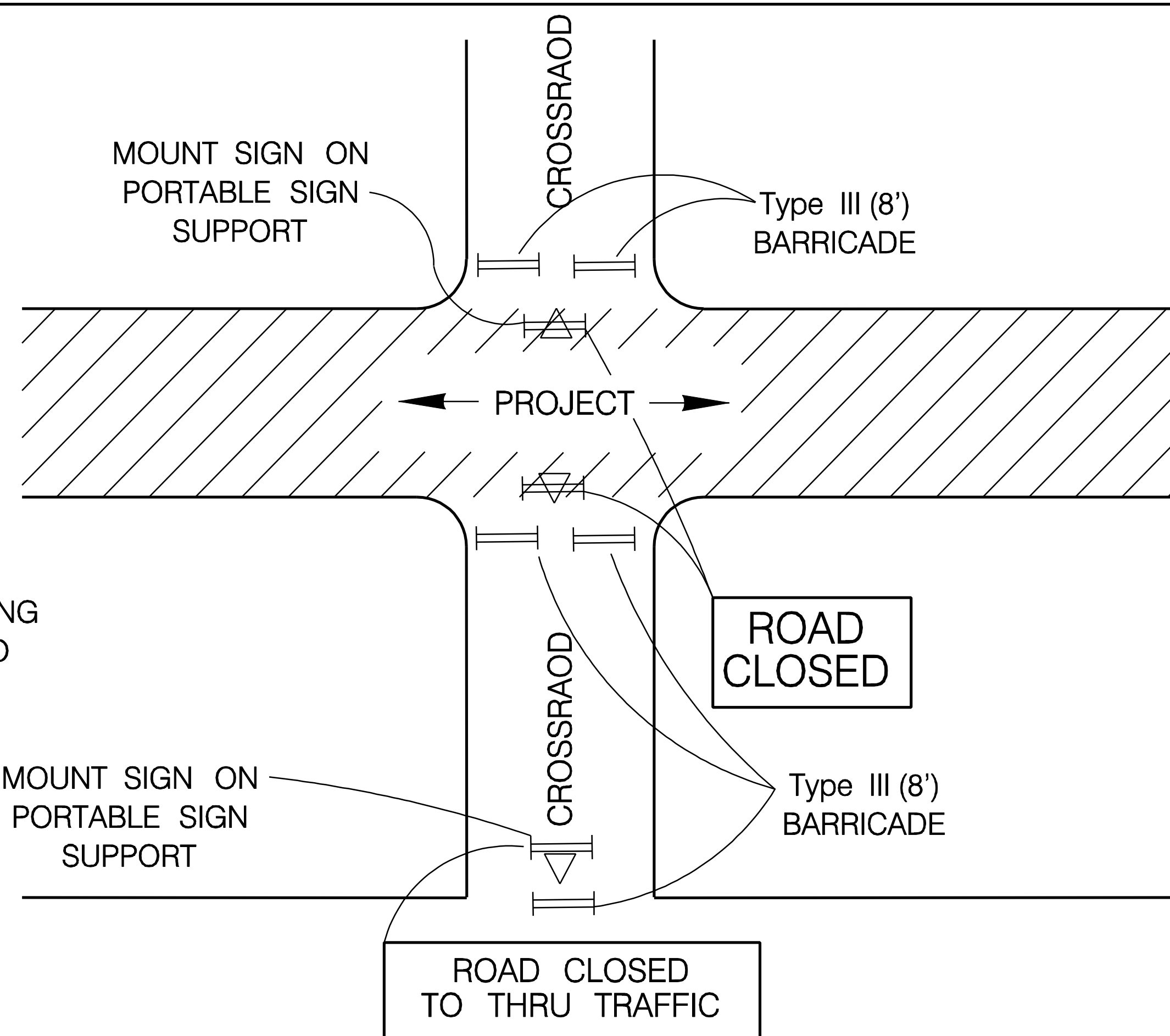
PROJ. NO.:

SHEET NO.: 2 OF 3



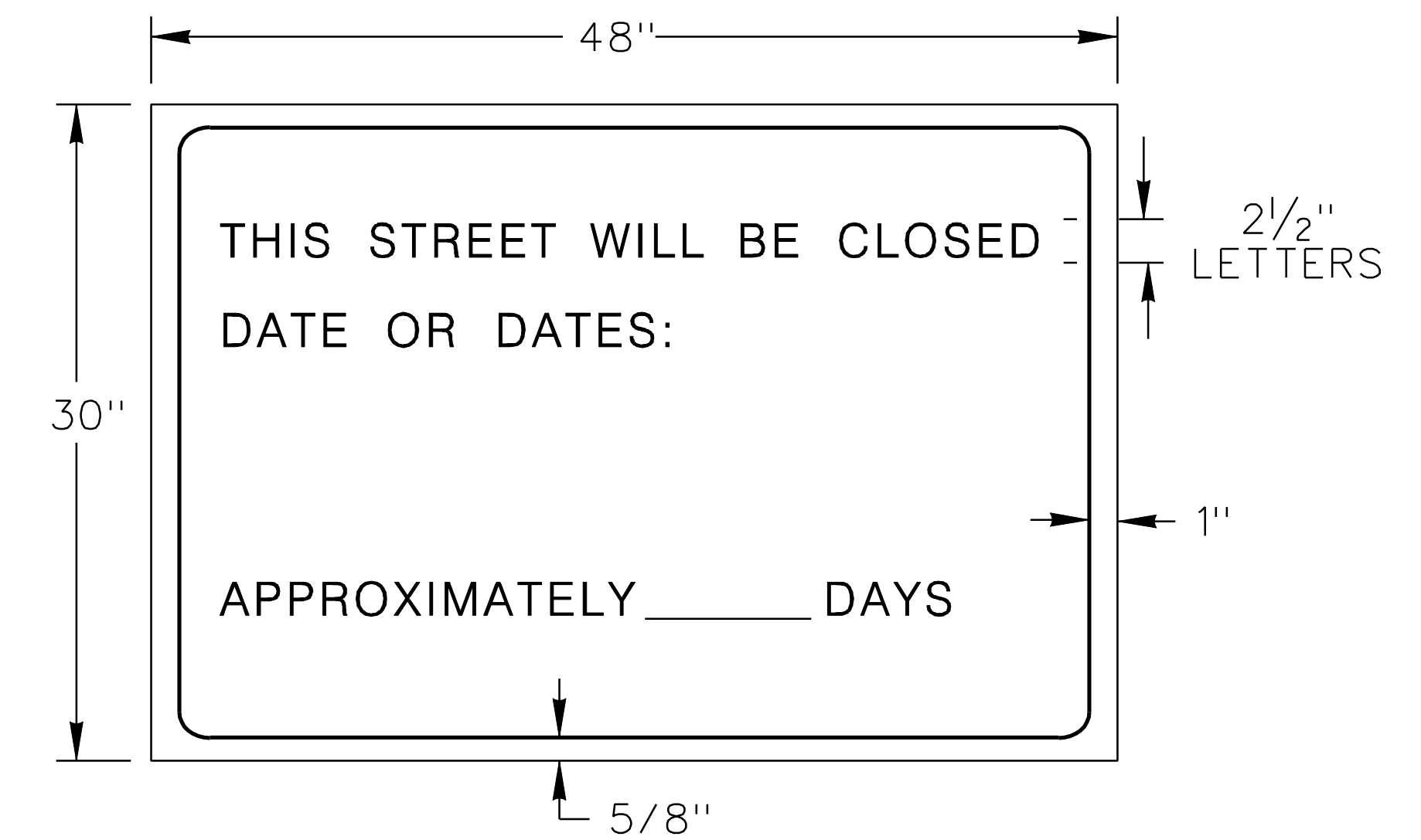
## PROJECT LIMITS FOR CLOSED ROADWAY

BARRICADES SHALL BE ERECTED COMPLETELY ACROSS ROADWAY. CHANNELIZING DEVICES MAY BE DRUMS, VERTICAL PANELS OR CONES AS SPECIFIED IN THE PLANS

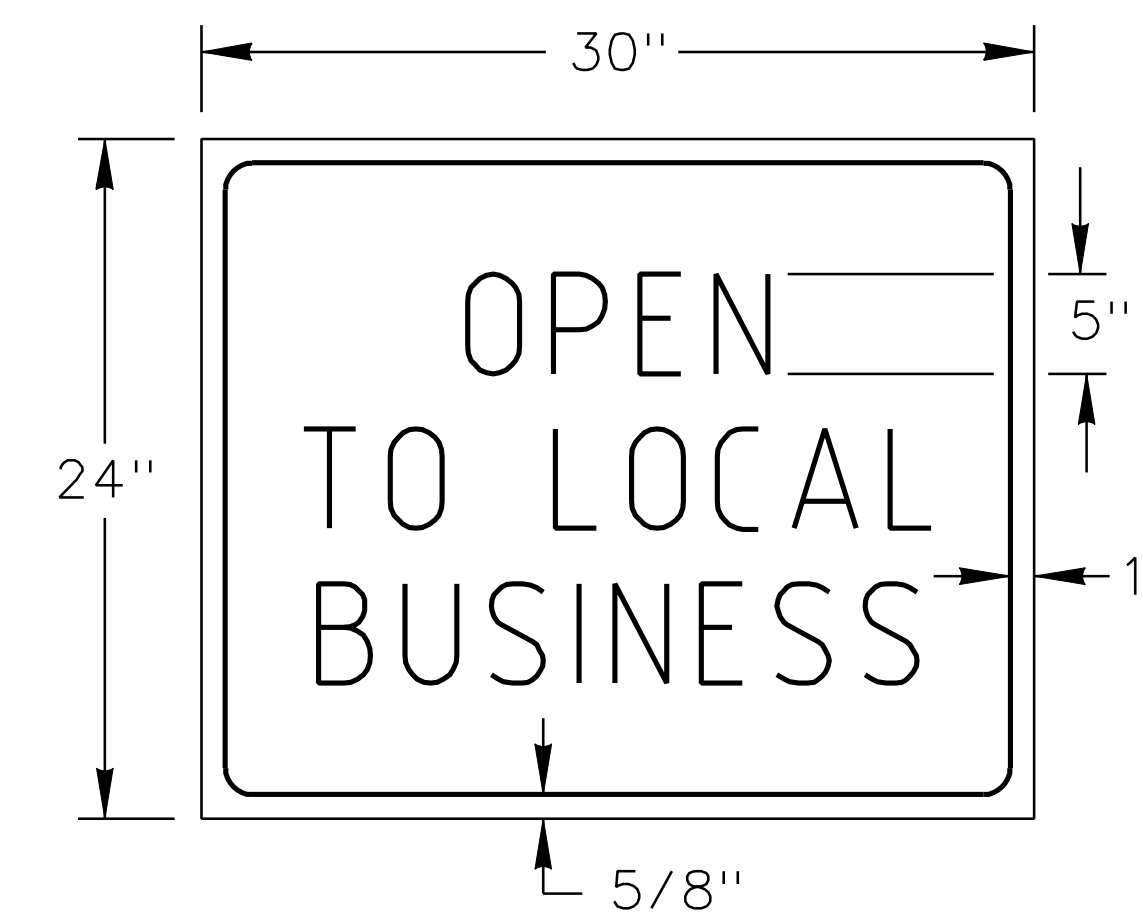


NOTE:  
ADVANCE WARNING  
SIGNS WILL ALSO  
BE NECESSARY

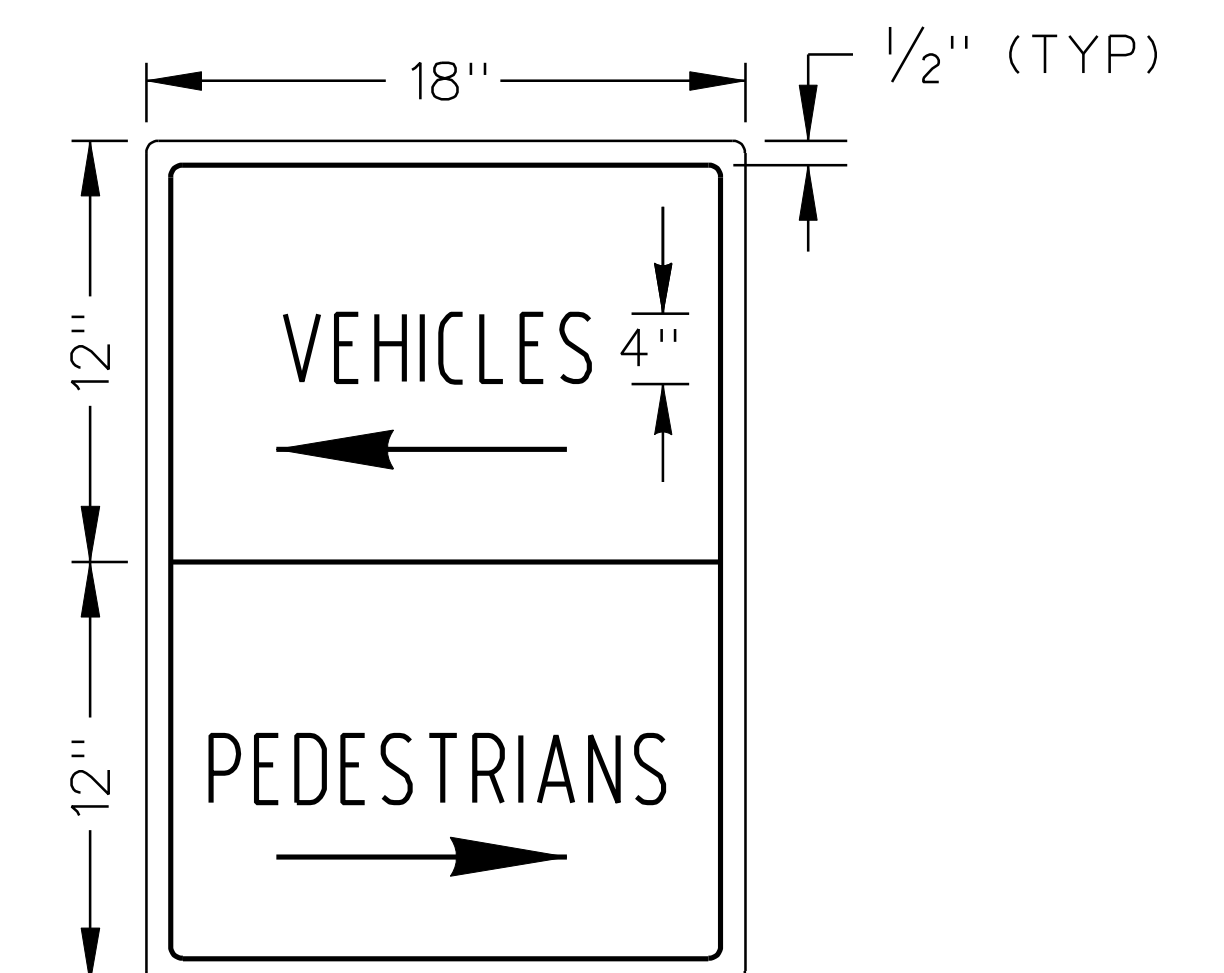
## CROSS STREET SIGNING AND BARRICADING TOTALLY CLOSED



LETTERS- BLACK  
BORDER- BLACK  
BACKGROUND- ORANGE



LETTERS- WHITE  
BORDER- WHITE  
BACKGROUND- BLUE REFLECTIVE



LETTERS- BLACK  
BORDER- BLACK  
BACKGROUND- ORANGE  
SPACING-3 SIGNS PER BLOCK

DIRECTION OF ARROWS  
ARE REVERSABLE

REVISED 9-24-99

CITY OF SAN ANTONIO, TEXAS			
DEPARTMENT OF PUBLIC WORKS		ENGINEERING & TRAFFIC DIVISION	
BARRICADE AND CONSTRUCTION STANDARDS (BC-SA(3)-99)			
SURV. BY: _____	1999	APPR. BY: _____	1999
DRWN. BY: O. TREVINO	1999	TRAFFIC SIGNAL DESIGN ENGINEER	1999
DSGN. BY: T. PIZZI	1999	APPR. BY: J. CLEMENTS	1999
CHKD. BY: J. CLEMENTS	1999	ENGINEERING & TRAFFIC ENGINEER	1999
SCALE: NOT TO SCALE		REF. NO.: _____	
PROJ. NO.: _____		SHEET NO.: 3 OF 3	